



JUNE 15, 1999

PTAS

PENNIE & EDMONDS LLP  
BRIAN M. POISSANT  
1155 AVENUE OF THE AMERICAS  
NEW YORK, NY 10036

A standard linear barcode is located at the bottom of the page, consisting of vertical black lines of varying widths on a white background.

\*101003004A\*

11.2.9 1999  
VKL 283  
TELE

8907-076

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/01/1999

REEL/FRAME: 9860/0805  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR: BJORKMAN, PAMELA J. DOC DATE: 03/19/1999

ASSIGNOR: *[Redacted]*

ASSIGNEE: *JOSE ELEBRON*

CALIFORNIA INSTITUTE OF TECHNOLOGY  
1200 E. CALIFORNIA BOULEVARD  
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 09216077 FILING DATE: 12/18/1998  
PATENT NUMBER: ISSUE DATE:

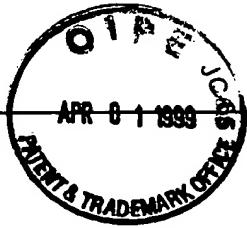
REFERRED TO Rosemarie  
REC'D  
JUN 28 1999  
Pennie & Edmonds  
2515 100

9860/0805 PAGE 2

MARY BENTON, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

04-07-1999

pre Mail No. EL 236 252 236 US

Attorney Docket Number  
8907-076-999

101003004

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS  
Box Assignment  
Washington, DC 20231

Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Pamela J. Bjorkman, Melanie Bennett and Jose Lebron

Additional name(s) of conveying party(ies) attached?  Yes  No

## 3. Nature of conveyance:

 Assignment  Merger Security Agreement  Change of Name Other \_\_\_\_\_Execution Date: March 19, 1999

## 2. Name and address of receiving party(ies):

Name: California Institute of TechnologyAddress: 1200 E. California Boulevard  
Pasadena, CA 91125

Country (if other than USA): \_\_\_\_\_

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s) 09/216,077

B. Patent No.(s) \_\_\_\_\_

Additional numbers attached?  Yes  No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

PENNIE & EDMONDS LLP  
1155 Avenue of the Americas  
New York, NY 10036

6. Number of applications and patents involved: \_\_\_\_\_

7. Total fee (37 CFR 3.41): .....\$ 40

Please charge to the deposit account listed in Section 8.

8. Deposit account number:  
16-1150

## DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

*by Brian M. Poissant  
Reg. No. 44,350*

Brian M. Poissant28,462Brian M. PoissantApril 1, 1999

Name of Person Signing Reg. No.

Signature

Date

Total number of pages including cover sheet:

4

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignment  
Washington, D.C. 20231

04/06/1999 VBROWN 00000028 161150 09216077

01 FC:581

40.00 CH

## ASSIGNMENT

WHEREAS, WE, PAMELA J. BJORKMAN, residing at 1630 Casa Grande Street, Pasadena, California 91104; MELANIE BENNETT, residing at 545 S. Euclid Avenue, #2, Pasadena, California 91101; and JOSE LEBRON, residing at 294 S. Wilson #6, Pasadena, California 91106, ASSIGNORS, citizens of the United States, are the inventors of the invention in **PEPTIDES AND PEPTIDE ANALOGUES DESIGNED FROM HFE PROTEIN AND THEIR USES IN THE TREATMENT OF IRON OVERLOAD DISEASES** for which we have executed an application for a Patent of the United States

which is executed on  even date herewith or  \_\_\_\_\_

which is identified by Pennie & Edmonds LLP docket no. 8907-076-999  
 which was filed on December 18, 1998, Application No. 09/216,077

and WHEREAS, CALIFORNIA INSTITUTE OF TECHNOLOGY, having a principal place of business at 1200 E. California Boulevard, Pasadena, California 91125, ASSIGNEE is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 3/19/99, 1999 Pamela Bjorkman L.S.  
 State of \_\_\_\_\_  
 County of \_\_\_\_\_ } SS.:  
 \_\_\_\_\_ }  
 Please See Attached Certificate

On this \_\_\_\_\_ day of \_\_\_\_\_, 1999, before me, a Notary Public in and for the State and County aforesaid, personally appeared Pamela J. Bjorkman, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

\_\_\_\_\_  
 Notary Public.

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Los Angeles

On March 19, 1999 before me,

APR 01 1999

PATENT & TRADEMARK OFFICE

personally appeared Pamela J. Björkman, Melanie Bennett, & Jose Lebron

Name and Title of Officer (e.g., "Jane Doe, Notary Public")

Name(s) of Signer(s)

personally known to me  OR  proved to me on the basis of satisfactory evidence to be the person(s)

whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Signature of Notary Public

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: Assignment

Document Date: 3/19/99

Number of Pages: 1

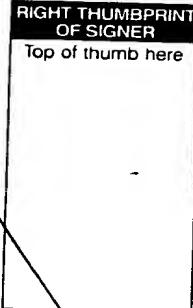
Signer(s) Other Than Named Above: None

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer
- Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney-in-Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_

Signer Is Representing:



Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer
- Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney-in-Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_

Signer Is Representing:





Date March 19, 1999

Melanie Bennett  
Melanie Bennett

L.S.

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) SS.: \_\_\_\_\_ )

On this    day of                   , 1999, before me, a Notary Public in and for the State and County aforesaid, personally appeared Melanie Bennett to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Please see attached certificate

**Notary Public.**

Date MARCH 19, 1999

~~J. M.~~  
Jose Lebron

L.S.

State of )  
County of ) SS.: )

On this        day of        1999, before me, a Notary Public in and for the State and County aforesaid, personally appeared Jose Lebron, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

please see attached certificate

Notary Public.



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 31, 2000

PTAS

PENNIE & EDMONDS LLP  
BRIAN M. POISSANT  
1155 AVENUE OF THE AMERICAS  
NY, NY 10036



\*101247536A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/06/2000

REEL/FRAME: 010489/0178  
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

PROGENITOR, INC.

DOC DATE: 03/24/1999

ASSIGNEE:

BIO-RAD LABORATORIES, INC.  
1000 ALFRED NOBEL DRIVE  
HERCULES, CALIFORNIA 94547

SERIAL NUMBER: 08436074 ✓ 8907-046  
PATENT NUMBER: 5753438 ✓

FILING DATE: 05/08/1995  
ISSUE DATE: 05/19/1998

SERIAL NUMBER: 08599252 ✓ 8907-049  
PATENT NUMBER: 5705343 ✓

FILING DATE: 02/09/1996  
ISSUE DATE: 01/06/1998

SERIAL NUMBER: 08632673 ✓ 8907-052  
PATENT NUMBER: 5712098 ✓

FILING DATE: 04/16/1996  
ISSUE DATE: 01/27/1998

SERIAL NUMBER: 08652265 ✓ 8907-053 ?  
PATENT NUMBER: 6025130 ✓

FILING DATE: 05/23/1996  
ISSUE DATE: 02/15/2000

RECEIVED  
PENNIE & EDMONDS

APR 07 2000

CA OFFICE

REFERRED TO <i>Lydia/McAfee</i>
REC'D
APR 06 2000
Pennie & Edmonds O.K. for filing

010489/0178 PAGE 2

SERIAL NUMBER: 08724394 8907-054.99  
PATENT NUMBER: 58722371

SERIAL NUMBER: 08834497 8907-056.999  
PATENT NUMBER:

SERIAL NUMBER: 08852495 8907-057.999  
PATENT NUMBER:

SERIAL NUMBER: 08867010 8907-059.999  
PATENT NUMBER:

SERIAL NUMBER: 08920559 8907-062.999?  
PATENT NUMBER:

SERIAL NUMBER: 09094964 8907-074.999  
PATENT NUMBER:

SERIAL NUMBER: 09216074 8907-076.999?  
PATENT NUMBER:

FILING DATE: 10/01/1996  
ISSUE DATE: 02/16/1999

FILING DATE: 04/04/1997  
ISSUE DATE:

FILING DATE: 05/07/1997  
ISSUE DATE:

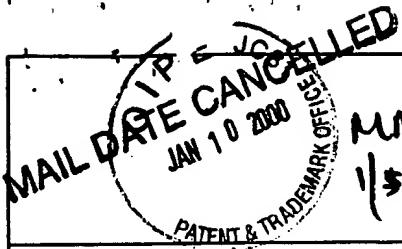
FILING DATE: 06/02/1997  
ISSUE DATE:

FILING DATE: 08/27/1997  
ISSUE DATE:

FILING DATE: 06/12/1998  
ISSUE DATE:

FILING DATE: 12/18/1998  
ISSUE DATE:

KIMBERLY WHITE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



10151  
01-19-2000



Mail No. EL 236 253 072 US

~02

AD

101247536

Attorney Docket Numbers  
8907-046-999; 8907-049-999; 8907-052-999; 8907-053-999;  
8907-054-999; 8907-056-999; 8907-057-999; 8907-059-999;  
8907-062-999; 8907-074-999; 8907-076-999

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS

Box Assignment  
Washington, DC 20231

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Progenitor, Inc.

Additional name(s) of conveying party(ies) attached?  Yes  No

3. Nature of conveyance:

Assignment  Merger

Security Agreement  Change of Name

Other \_\_\_\_\_ FN

Execution Date: March 24, 1999

2. Name and address of receiving party(ies):

Name: Bio-Rad Laboratories, Inc.

Address: 1000 Alfred Nobel Drive  
Hercules, CA 94547

Country (if other than USA): \_\_\_\_\_

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

B. Patent No.(s) \_\_\_\_\_

08/436,074 (now US 5,753,438); 08/599,252 (now US 5,705,343); 08/632,673 (now US 5,712,098); 08/652,265, 08/724,394 (now US 5,872,237); 08/834,497; 08/852,495; 08/867,010; 08/920,559; 09/094,964; 09/216,077

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

PENNIE & EDMONDS LLP  
1155 Avenue of the Americas  
New York, NY 10036

6. Number of applications and patents involved: 11

7. Total fee (37 CFR 3.41): ..... \$ 440.00  
Please charge to the deposit account listed in Section 8.

8. Deposit account number:  
16-1150

01/16/2000 DNGUYEN 00000103 161150 08436074

01 FU:581

440.00 CH

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9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Brian M. Poissant

28,462

Name of Person Signing

Reg. No.

Signature

Total number of pages including cover sheet:

5

*Jan. 6, 2000*

Date

## ASSIGNMENT

**WHEREAS**, Progenitor, Inc., a Delaware corporation having offices at 4040 Campbell Avenue, Menlo Park, California 94025 ("PROGENITOR"), owns, by assignment, all right, title, and interest in those patents and patent applications set forth on Exhibit A hereto and all inventions claimed therein (the "PROGENITOR PATENTS"); and Bio-Rad Laboratories, Inc., a Delaware corporation having offices at Corporate Offices, 1000 Alfred Nobel Drive, Hercules, California 94547 ("BIO-RAD"), desires to acquire PROGENITOR's entire right, title, and interest in and to the PROGENITOR PATENTS.

**NOW THEREFORE**, be it known that, in consideration of one dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, PROGENITOR hereby sells, assigns, transfers, and sets over to BIO-RAD, its lawful successors and assigns, PROGENITOR's entire right, title, and interest in and to the PROGENITOR PATENTS and all inventions disclosed therein, and all letters patent of the United States that may be granted thereon, and all reissues, reexaminations, and extensions thereof; and all rights to claim priority on the basis of all such patents and patent applications, and all applications for letters patent claiming priority from the PROGENITOR PATENTS that have been or may be filed in any foreign country and all such letters patent that may be granted thereon in any foreign country, and all extensions, renewals, and reissues thereof; and PROGENITOR hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all letters patent for this invention to BIO-RAD, its successors and assigns, in accordance with the terms of this Assignment;

**AND, PROGENITOR HEREBY** further covenants that PROGENITOR has the full right to convey the interest assigned by this Assignment, PROGENITOR will take all action and execute all documents necessary to perfect the interest assigned hereby, and PROGENITOR has not executed and will not execute any agreement in conflict with this Assignment;

**AND, PROGENITOR HEREBY** further covenants and agrees that PROGENITOR, through its officers and employees, will, without further consideration, communicate with BIO-RAD, its successors and assigns, any facts known to PROGENITOR and its officers and employees respecting the invention and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver all papers that may be necessary or desirable to perfect the title to the invention in said BIO-RAD, its successors and assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths, and generally do everything possible to aid BIO-RAD, its

successors and assigns, to obtain and enforce proper patent protection for the invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by BIO-RAD, its successors and assigns.

**IN WITNESS WHEREOF**, each party has caused its authorized representative to execute this Assignment.

PROGENITOR, INC.

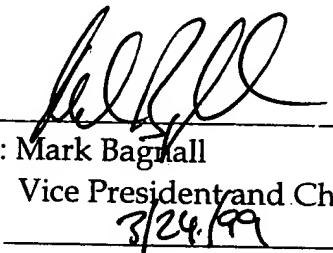
By:   
Name: Mark Bagwell  
Title: Vice President and Chief Financial Officer  
Date: 3/24/99

EXHIBIT A  
TO  
ASSIGNMENT

BETWEEN PROGENITOR, INC. AND BIO-RAD LABORATORIES, INC.

I. U.S. PATENTS AND PATENT APPLICATIONS

<u>Inventor</u>	<u>Serial No.</u>	<u>Filed</u>	<u>Title</u>
Drayna et al.	08/436,074	05/08/95	Method to Diagnose Hereditary Hemochromatosis
Drayna et al.	08/599,252	02/09/96	Method to Diagnose Hereditary Hemochromatosis
Tsuchihashi et al.	08/632,673	04/16/96	Hereditary Hemochromatosis Diagnostic Markers and Diagnostic Methods
Thomas et al.	08/652,265	05/23/96	Hereditary Hemochromatosis Gene
Feder et al.	08/724,394	10/01/96	Megabase Transcript Map: Novel Sequences and Antibodies Thereto
Thomas et al.	08/834,497	04/04/97	Hereditary Hemochromatosis Gene
Ruddy and Wolff	08/852,495	05/07/97	Polymorphisms in the Region of the Human Hemochromatosis Gene
Feder et al.	08/867,010	06/13/97	Methods and Compositions for Diagnosis and Treatment of Iron Overload Diseases
Feder et al.	08/920,559	08/27/97	Methods and Compositions for Diagnosis and Treatment of Iron Misregulation Diseases
Feder et al.	09/094,964	06/12/98	Methods and Compositions for Diagnosis and Treatment of Iron Overload Diseases and Iron Deficiency Diseases
Feder et al.	09/216,077	12/18/98	Peptides and Peptide Analogues Designed from HFE Protein and Their Uses in the Treatment of Iron Overload Disease

D. Givon  
DOUGLASS GIVON  
PRESS, DENT  
PROSPECTOR, INC  
5/31/00

## II. FOREIGN PATENTS AND PATENT APPLICATIONS

<u>Country</u>	<u>Application No.</u>	<u>Filed</u>
Canada	2,220,293	05/08/96
Australia	58559/96	05/08/96
South Africa	96/3639	05/08/96
EPO	96920167.2	05/08/96
U.S.T	PCT/US96/06583	05/08/95
South Africa	97/6370	03/19/97
South Africa	97/8804	10/01/97
PCT	PCT/US97/17658	09/30/97
Canada		04/04/97
Australia	26701/97	04/04/97
EPO	97918642.6	04/04/97
U.S.T	PCT/US97/06254	04/04/97
PCT	PCT/US98/12436	06/12/98